

| L Number | Hits | Search Text   | DB                               | Time stamp       |
|----------|------|---|----------------------------------|------------------|
| 13       | 1    | 6396699.pn.   | USPAT;                           | 2004/05/14 10:28 |
| 17       | 2    | 6437240.URPN.   | US-PGPUB                         | 2004/05/14 10:46 |
| 18       | 57   | ("2734154"   "4034468"   "4034469"   "4233645"  <br>"4254431"   "4299715"   "4323914"   "4398975"  <br>"4435611"   "4466483"   "4473113"   "4607277"  <br>"4806111"   "4915167"   "4966142"   "5011787"  <br>"5031308"   "5037312"   "5056706"   "5071787"  <br>"5074947"   "5086558"   "5097387"   "5131582"  <br>"5148141"   "5148265"   "5148266"   "5164566"  <br>"5170930"   "5196371"   "5198189"   "5223747"  <br>"5237130"   "5323265"   "5323294"   "5328087"  <br>"5367435"   "5410449"   "5445308"   "5455390"  <br>"5459352"   "5542602"   "5553769"   "5557501"  <br>"5561590"   "5572404"   "5611884"   "5651179"  <br>"5658831"   "5688721"   "5720100"   "5745344"  <br>"5808874"   "5819406"   "5920125"   "5975408"  <br>"6000127").PN. | USPAT                            | 2004/05/14 10:53 |
| 22       | 3    | 5777385.URPN.   | USPAT                            | 2004/05/14 10:59 |
| 23       | 7    | ("4149310"   "4561040"   "5291064"   "5378924"  <br>"5525834"   "5583073"   "5614766").PN.  | USPAT                            | 2004/05/14 11:05 |
| 26       | 2    | ("5592735"   "5777385").PN.   | USPAT                            | 2004/05/14 11:06 |
| 27       | 1    | 6162659.URPN.   | USPAT                            | 2004/05/14 11:07 |
| 28       | 4074 | 438/108.ccls. 438/122.ccls. 438/124.ccls. 438/127.ccls.<br>438/612.ccls. 438/613.ccls. 438/615.ccls.  | USPAT;<br>US-PGPUB               | 2004/05/14 11:15 |
| 30       | 986  | (438/108.ccls. 438/122.ccls. 438/124.ccls. 438/127.ccls.<br>438/612.ccls. 438/613.ccls. 438/615.ccls.) and (bump\$5 ball<br>protrusion solder ubm underbump pad contact) and (heat<br>near (sink spreader dissipat\$6))   | USPAT;<br>US-PGPUB               | 2004/05/14 11:21 |
| 31       | 473  | (438/108.ccls. 438/122.ccls. 438/124.ccls. 438/127.ccls.<br>438/612.ccls. 438/613.ccls. 438/615.ccls.) and (solder adj<br>(bump\$5 ball protrusion)) and (heat near (sink spreader<br>dissipat\$6)) and ((flip ic circuit semiconductor) adj (chip die<br>dice))  | USPAT;<br>US-PGPUB               | 2004/05/14 11:25 |
| 33       | 395  | ((438/108.ccls. 438/122.ccls. 438/124.ccls. 438/127.ccls.<br>438/612.ccls. 438/613.ccls. 438/615.ccls.) and (solder adj<br>(bump\$5 ball protrusion)) and (heat near (sink spreader<br>dissipat\$6)) and ((flip ic circuit semiconductor) adj (chip die<br>dice))) and ((substrate carrier module) with (pad contact<br>electrode ubm underbump))   | USPAT;<br>US-PGPUB               | 2004/05/14 12:41 |
| 34       | 175  | (solder adj (bump\$5 ball protrusion)) same (heat near (sink<br>spreader dissipat\$6)) same ((flip ic circuit semiconductor)<br>adj (chip die dice)) same ((substrate carrier module) with<br>(pad contact electrode ubm underbump)) same (align\$6<br>reflow\$6 attach\$6 underfill encapsulat\$6 join\$6 bond\$6)   | USPAT;<br>US-PGPUB               | 2004/05/14 15:06 |
| 36       | 1    | 6507104.URPN.   | USPAT                            | 2004/05/14 14:35 |
| 37       | 13   | ("5522667"   "5619070"   "5726079"   "5920120"  <br>"5939783"   "5977626"   "6117705"   "6150724"  <br>"6191360"   "6218730"   "6255143"   "6265771"  <br>"6271058").PN.  | USPAT                            | 2004/05/14 14:36 |
| 35       | 66   | (solder adj (bump\$5 ball protrusion)) and (heat near (sink<br>spreader dissipat\$6)) and ((flip ic circuit semiconductor) adj<br>(chip die dice)) and ((substrate carrier module) with (pad<br>contact electrode ubm underbump)) and (align\$6 reflow\$6<br>attach\$6 underfill encapsulat\$6 join\$6 bond\$6)   | EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/05/14 14:54 |
| 38       | 19   | ((bump\$5 ball protrusion) near2 (heat near (sink spreader<br>dissipat\$6))) same ((flip ic circuit semiconductor) adj (chip<br>die dice)) same ((substrate carrier module) with (pad<br>contact electrode ubm underbump)) same (align\$6 reflow\$6<br>attach\$6 underfill encapsulat\$6 join\$6 bond\$6)   | USPAT;<br>US-PGPUB               | 2004/05/14 15:07 |
| 40       | 390  | (bump\$5 ball protrusion) near2 (heat near (sink spreader<br>dissipat\$6))  | USPAT;<br>US-PGPUB               | 2004/05/14 15:09 |

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|    |     |   |                                  |                  |
|----|-----|---|----------------------------------|------------------|
| 41 | 101 | ((bump\$5 ball protrusion) near2 (heat near (sink spreader dissipat\$6))) and ((flip ic circuit semiconductor) adj (chip die dice)) same ((substrate carrier module) with (pad contact electrode ubm underbump))  | USPAT;<br>US-PGPUB               | 2004/05/14 15:10 |
| 43 | 247 | (bump\$5 ball protrusion) near2 (heat near (sink spreader dissipat\$6))   | EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/05/14 15:09 |
| 44 | 19  | ((bump\$5 ball protrusion) near2 (heat near (sink spreader dissipat\$6))) and ((flip ic circuit semiconductor) adj (chip die dice)) same ((substrate carrier module) with (pad contact electrode ubm underbump))  | EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/05/14 15:10 |
| 39 | 23  | ((bump\$5 ball protrusion) near2 (heat near (sink spreader dissipat\$6))) same ((flip ic circuit semiconductor) adj (chip die dice)) same ((substrate carrier module) with (pad contact electrode ubm underbump)) | USPAT;<br>US-PGPUB               | 2004/05/14 15:13 |
| 42 | 46  | (438/108.ccls. 438/122.ccls. 438/124.ccls. 438/127.ccls. 438/612.ccls. 438/613.ccls. 438/615.ccls.) and ((bump\$5 ball protrusion) near2 (heat near (sink spreader dissipat\$6)))                                 | USPAT;<br>US-PGPUB               | 2004/05/14 15:17 |
| -  | 13  | 5777385.pn. 20020121705.pn. 20020163075.pn. 20020180023.pn. 4034468.pn. 6437240.pn. 6396669.pn. 6495915.pn. 6255143.pn. 6362530.pn. 6479903.pn. 6245186.pn. 6339254.pn.   | USPAT;<br>US-PGPUB               | 2004/05/14 10:28 |